

Answers for Exam I, 1996-97

1. Not available (should be about 4 equations/4 unknowns depending on how the equation is solved.

2. a) 206,300 kg/s, b) 3.82 m/s

3. Must show all work for credit! 
$$\frac{dz}{dt} = \frac{4}{\rho \pi (d_0^2 - d_1^2)} \left[ \dot{m}_{pipe} + \frac{\pi d_1^2}{4} \rho V_0 \right]$$

4. There should be 3 equations and 3 unknowns.